REMARKS

The Office Action dated December 10, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claim 7 has been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added and no new issues are raised which require further consideration or search.

Claim 7 was objected to for containing a minor informality. Applicants thank the Examiner for pointing out the informality. Claim 7 has been amended to correct the informality. Withdrawal of the objection is kindly requested.

Claim 9 was objected to for containing allowable subject matter and would be allowed if amended into independent form to include all of the limitations of its parenting claim. Applicants wish to thank the Examiner for the indication of allowable subject matter. However, claims 6-8 and 17-18 are respectfully submitted for reconsideration.

Claims 1, 17 and 18 were rejected on the ground of non-statutory obviousness-type double patenting as being allegedly unpatentable over U.S. Patent No. 6,693,917. Applicants respectfully submit that this rejection is rendered moot for the following reasons.

Claim 1 was previously cancelled. Applicants will assume for purposes of responding to this rejection that the Examiner meant to reject claim 6 in place of claim 1. As noted in the Office Action, a non-statutory obviousness-type double patenting rejection may be overcome by a timely filed Terminal Disclaimer in compliance with 37 C.F.R. §1.321(c). Applicants enclose herewith a first Terminal Disclaimer which complies with the provisions of 37 C.F.R. §1.321(c). Therefore, Applicants request that the non-statutory obviousness-type double patenting rejection of claims 6 and 17-18 in view of U.S. Patent No. 6,693,917 be withdrawn.

Claims 1, 17 and 18 were rejected on the ground of non-statutory obviousness-type double patenting as being allegedly unpatentable over U.S. Patent No. 6,295,272. Applicants respectfully submit that this rejection is rendered moot for the following reasons.

Claim 1 was previously cancelled. Applicants will assume for purposes of responding to this rejection that the Examiner meant to reject claim 6 in place of claim 1. As noted in the Office Action, a non-statutory obviousness-type double patenting rejection may be overcome by a timely filed Terminal Disclaimer in compliance with 37 C.F.R. §1.321(c). Applicants enclose herewith a second Terminal Disclaimer which complies with the provisions of 37 C.F.R. §1.321(c). Therefore, Applicants request that the non-statutory obviousness-type double patenting rejection of claims 6 and 17-18 in view of U.S. Patent No. 6,295,272 be withdrawn.

Claims 6-7 and 17-18 were rejected under 35 U.S.C. §102(e) as being unpatentable over Bingham (U.S. Patent No. 6,035,000) The Office Action took the position that Bingham discloses all of the elements of the claims. This rejection is respectfully traversed for at least the following reasons.

Claim 6, upon which claims 7-9 are dependent, recites a subchannel digital data communication system. The system includes a media for carrying high speed digital data signals generated by a high speed data transmitter. The system also includes a transmitter means for receiving subchannel data and modulating it onto a host signal which propagates on said media, and receiver means coupled to said media for recovering said subchannel data from said host signal.

Claim 17 recites a system for transmitting subchannel data. The system includes a media, and transmitter means for receiving subchannel data and modulating it onto a host signal which propagates on said media.

Claim 18 recites a system for transmitting subchannel data. The system includes a media, and receiver means coupled to said media for recovering said subchannel data from a host signal modulated with said subchannel data propagating on said media.

As will be discussed below, the teachings of Bingham fail to disclose or suggest all of the elements of the claims, and therefore fail to provide the features discussed above. The rejection is respectfully traversed for at least the following reasons.

Bingham is directed to reducing interference in multi-carrier data transmission systems. FIG. 12 illustrates a central modem configured to perform a discrete multi-tone transmission scheme. A transmitter 40 of the modem includes an encoder 43 which serves to multiplex, synchronize and encode data to be transmitted. Incoming "bit streams" are translated into phase and quadrature components and are encoded onto subchannels (see column 13, lines 29-36). Further, the transmitter 40 includes a line monitor that monitors the communication line to determine the line quality of each of the available subchannels (e.g., noise level, gain, phase shift etc.). Ultimately, a determination is made as to what subchannels to transmit the encoded data over and how much data to transmit over each subchannel (see column 13, lines 57-60). (Emphasis added)

As can be seen from the teachings of Bingham, the subchannels are selected to transmit the data encoded by the transmitter 40. Contrary to the teachings of Bingham, claim 6 recites, in part, "transmitter means for **receiving subchannel data and modulating it onto a host signal** which propagates on said media; receiver means coupled to said media for recovering said subchannel data from said host signal." The transmitter means performs a modulation of the subchannel's data onto a host signal. Bingham does not teach a host signal, and clearly does not teach modulating subchannel data onto the host signal.

The teachings of Bingham perform an operation that is converse to the teachings of claim 6. As stated above, the data received by the transmitter 40 of Bingham is encoded into a subchannel prior to transmission. In the present application, the subchannel data is modulated onto a host signal. Bingham simply does not teach a host signal or modulating subchannel data onto a host signal. Bingham only teaches encoding data by a transmitter 40 to transmit the data on a subchannel. There is no teaching anywhere in the disclosure of Bingham using a host signal or of data being modulated onto a host signal.

For at least the reasons stated above, independent claims 6 and 17-18 are allowable over the teachings of Bingham. By virtue of dependency, claims 7-9 are also allowable over Bingham. Withdrawal of the rejection and an allowance thereof is respectfully requested.

Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bingham in view of Ducarior (U.S. Patent No. 6,167,077). Applicants respectfully traverse this rejection.

Bingham is discussed above. Ducarior discloses a method for minimizing data skew during transmission over a plurality of data lines. The method includes first simultaneously transmitting a test pattern over the plurality of data lines and receiving the test pattern. Data skew is measured across the plurality of data sets comprising the test pattern, and an inversing data pattern which minimizes the data skew in the data stream is determined. The inversing data pattern for each of the plurality of data sets is communicated to a demultiplexer. This allows multiple high speed data lines to transmit data while minimizing skew.

Claim 8 is dependent upon claim 6 and inherits all of the limitations thereof. As discussed above, the combination of Bingham fails to disclose or suggest all of the elements of claim 6. In addition, Ducarior fails to cure the deficiencies in Bingham as Ducarior also fails to disclose or suggest "transmitter means for receiving subchannel data and modulating it onto a host signal which propagates on said media; receiver means coupled to said media for recovering said subchannel data from said host signal." Thus, the combination of Bingham and Ducarior fails to disclose or suggest all of the elements of claim 8. Furthermore, claim 8 should be allowed for at least its dependence upon claim 6, and for the specific limitations recited therein.

For at least the reasons discussed above, Applicants respectfully submit that the cited references fail to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 6-9 and 17-18 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosure: Submission of (2) Two Terminal Disclaimers
Check No. 018056